

Region 2 Guidance for Incorporating Climate Change Considerations in Five Year Reviews

Background

In June 2011, EPA issued a *Policy Statement on Climate-Change Adaptation* which recognized that climate change can pose significant challenges to EPA's ability to fulfill its mission. It calls for the Agency to anticipate and plan for future changes in climate and incorporate considerations of climate change into its activities. The *Policy Statement* also requires the development of an Agency-wide adaptation strategy that would integrate climate adaptation into the Agency's programs, policies, rules and operations. In addition to the Agency strategy, the *Policy Statement* also directed every EPA Program and Regional Office to develop an Implementation Plan that provides more detail on how it will meet the priorities and carry out the work called for in the agency-wide plan.

The Region 2 Climate Change Workgroup completed its Adaptation Implementation Plan in 2014. One of the priority actions identified in the Plan is to "include consideration of potential climate change impacts in Five-Year Reviews of NPL sites (e.g. flooding impacts to capped sites, changes to aquifers and plume migration, etc.)." This guidance outlines how the Region will implement this priority action.

Process for Considering Climate Change Impacts

When preparing the FYR, RPMs and site project teams should follow the attached decision tree to determine potential site vulnerabilities from climate change. EPA Region 2 has already identified potential vulnerabilities that are likely to affect contaminated sites; these are included in the decision tree. It is expected that most impacted sites will already have provisions in the O&M Plan to respond to climate effects. In addition to the process in the decision tree, any new storm events, flooding, etc., that have affected the site (whether or not they are related to climate change) are typically discussed in Question C, and this practice can continue.

Examples of web resources that RPMs can use to confirm climate data and indicators listed in the decision tree (such as temperature, precipitation, wind speeds, etc.) are provided in OSRTP's December 2013 fact sheet titled [*Climate Change Adaptation Technical Fact Sheet: Groundwater Remediation Systems*](#). Information about O&M is available in *Operation and Maintenance in the Superfund Program* (OSWER 9200.1-37FS, May 2001) and on-line at <https://semspub.epa.gov/work/HQ/176112.pdf>. O&M information is also generally available at <https://www.epa.gov/superfund/superfund-post-construction-completion>.

Have you seen evidence of any of the following situations at your site?

- Contaminant release or migration from remedies due to water level rise or flooding.
- Remedy impairment due to water level rise, flooding, storms and/or winds.
- Other site changes that may be related to any of the following climate change impacts:
 - Sea level rise
 - Increasing frequency of heavy precipitation events
 - Increasing intensity of storms (winds/precipitation/storm surge)
 - Increasing risk of floods
 - Changes in temperature

YES

Does the O&M Plan have provisions for responding to these changes?

YES

Include this template language in the O&M section of the FYR: *Potential site impacts from climate change have been assessed, and the performance of the remedy may be impacted by the following climate change effects in the region and near the site (list potential effects from above). However, the O&M Plan addresses these impacts by... (describe relevant mitigation or adaptation measures from the O&M Plan).*

NO

Include this template language in the O&M section of the FYR: *Potential site impacts from climate change have been assessed, and the performance of the remedy may be impacted by the following expected effects of climate change in the region and near the site: (list potential effects from above). Consider updating the O&M Plan to include the following measures...(describe relevant mitigation or adaptation measures).*

NO

Include this template language in the O&M section of the FYR: *Potential site impacts from climate change have been assessed, and the performance of the remedy is currently not at risk due to the expected effects of climate change in the region and near the site.*